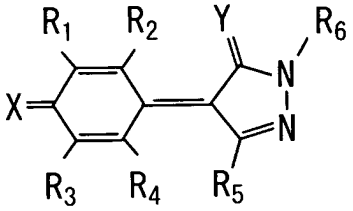
CLAIMS

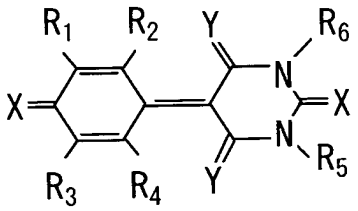
1. A compound represented by a following general formula (4):



..... General formula (4)

wherein R_1 through R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid except that R_1 and R_3 are tert-butyl, R_2, R_4 and R_6 are hydrogen, R_5 is methyl; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur.

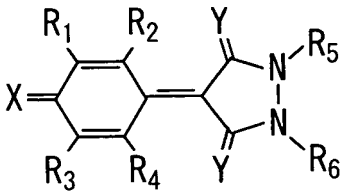
2. A compound represented by a following general formula (6):



..... General formula (6)

wherein R_1 through R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur.

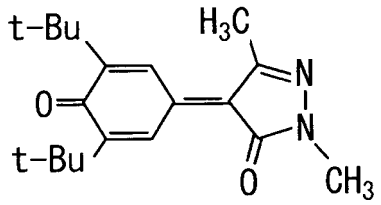
3. A compound represented by a following general formula (44):



····· General formula (44)

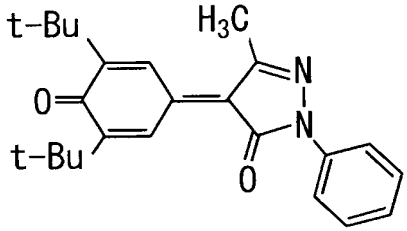
wherein R_1 through R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur.

4. A compound represented by a following chemical formula (7):



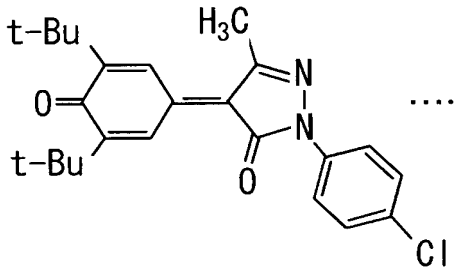
····· Chemical formula (7)

5. A compound represented by a following chemical formula (8):



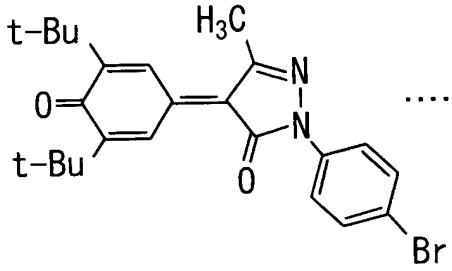
····· Chemical formula (8)

6. A compound represented by a following chemical formula (9):



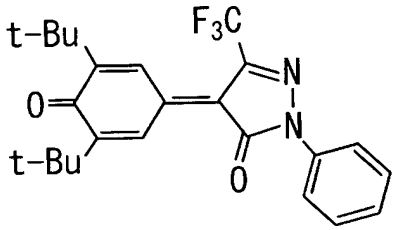
····· Chemical formula (9)

7. A compound represented by a following chemical formula (10):



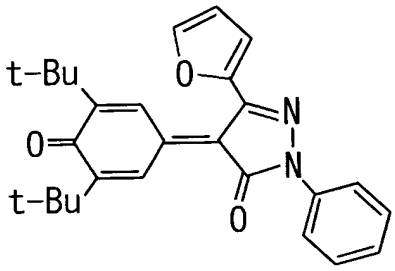
..... Chemical formula (10)

8. A compound represented by a following chemical formula (11):



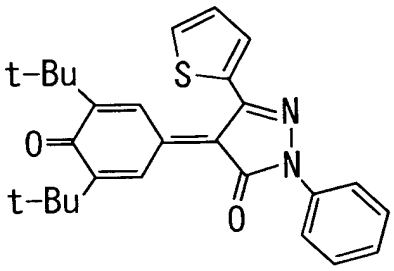
..... Chemical formula (11)

9. A compound represented by a following chemical formula (12):



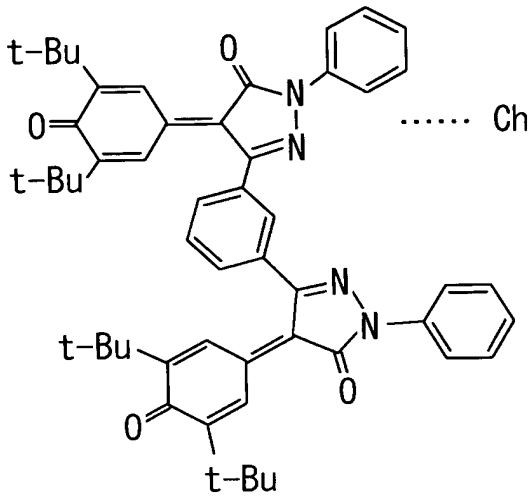
..... Chemical formula (12)

10. A compound represented by a following chemical formula (13):



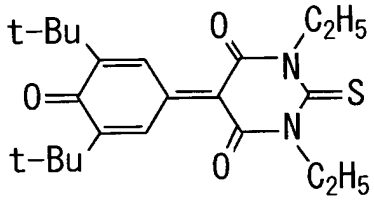
..... Chemical formula (13)

11. A compound represented by a following chemical formula (14):



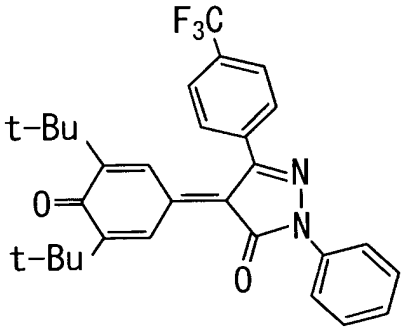
..... Chemical formula (14)

12. A compound represented by a following chemical formula (16):



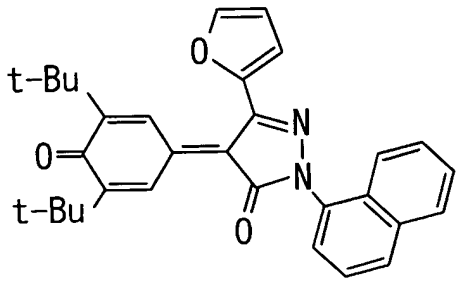
..... Chemical formula (16)

13. A compound represented by a following chemical formula (29):



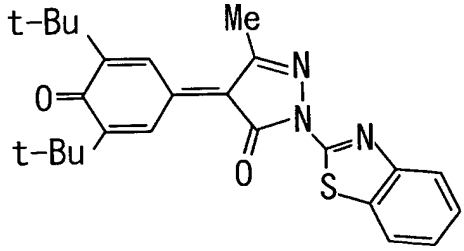
..... Chemical formula (29)

14. A compound represented by a following chemical formula (30):



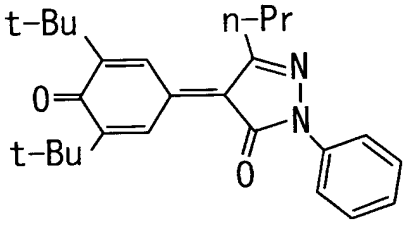
..... Chemical formula(30)

15. A compound represented by a following chemical formula (31):



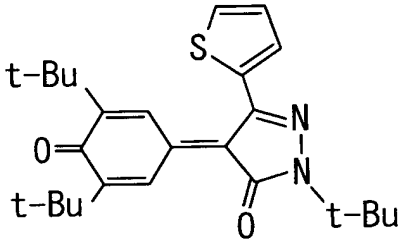
..... Chemical formula(31)

16. A compound represented by a following chemical formula (32):



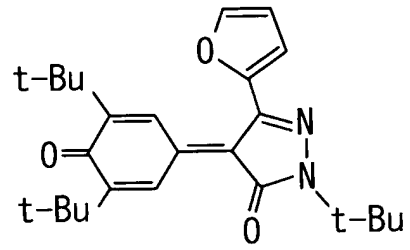
..... Chemical formula(32)

17. A compound represented by a following chemical formula (33):



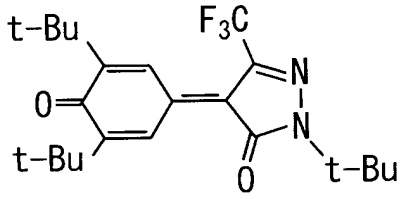
..... Chemical formula(33)

18. A compound represented by a following chemical formula (34):



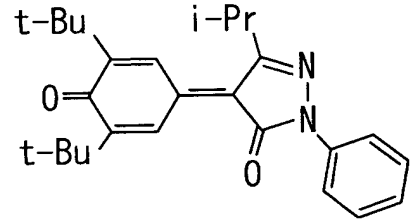
..... Chemical formula (34)

19. A compound represented by a following chemical formula (35):



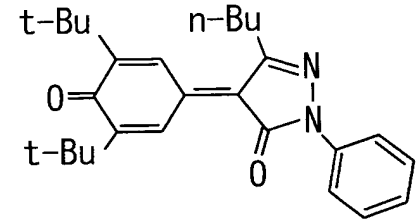
..... Chemical formula (35)

20. A compound represented by a following chemical formula (36):



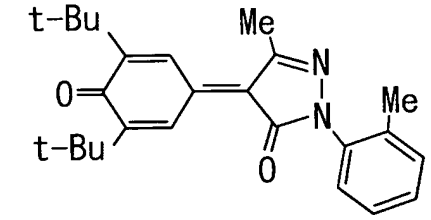
..... Chemical formula (36)

21. A compound represented by a following chemical formula (37):



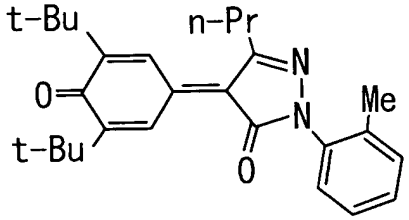
..... Chemical formula (37)

22. A compound represented by a following chemical formula (38):



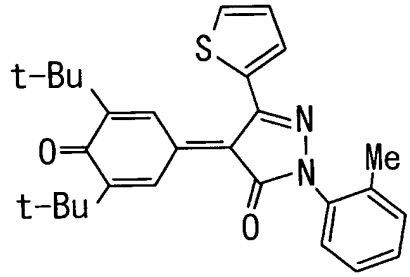
..... Chemical formula (38)

23. A compound represented by a following chemical formula (39):



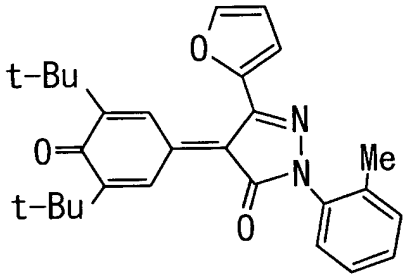
..... Chemical formula(39)

24. A compound represented by a following chemical formula (40):



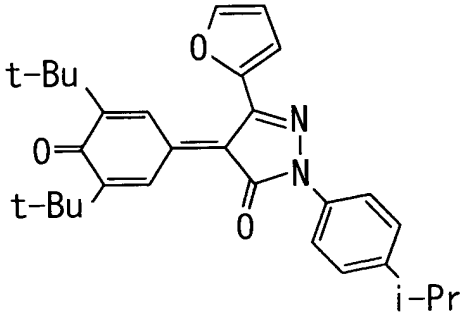
..... Chemical formula(40)

25. A compound represented by a following chemical formula (41):



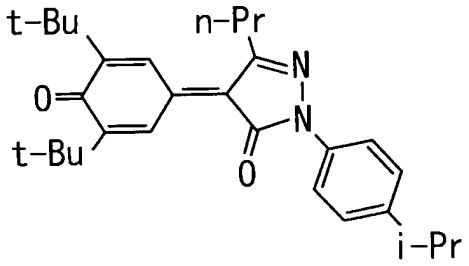
..... Chemical formula(41)

26. A compound represented by a following chemical formula (42):



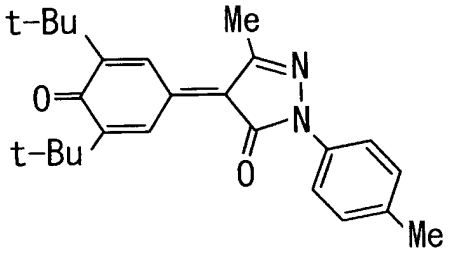
..... Chemical formula(42)

27. A compound represented by a following chemical formula (43):



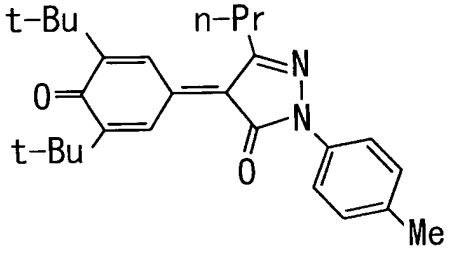
..... Chemical formula(43)

28. A compound represented by a following chemical formula (45):



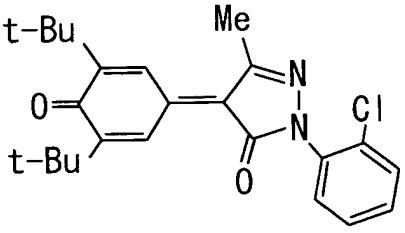
..... Chemical formula(45)

29. A compound represented by a following chemical formula (46):



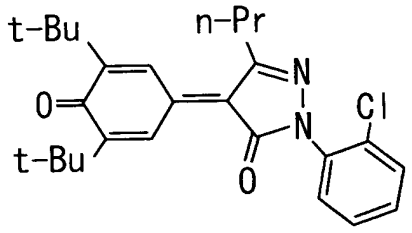
..... Chemical formula(46)

30. A compound represented by a following chemical formula (47):



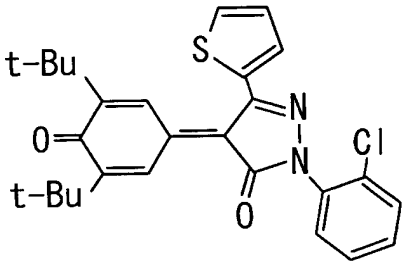
..... Chemical formula(47)

31 A compound represented by a following chemical formula (48):



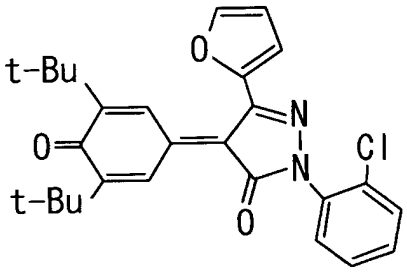
..... Chemical formula(48)

32 A compound represented by a following chemical formula (49):



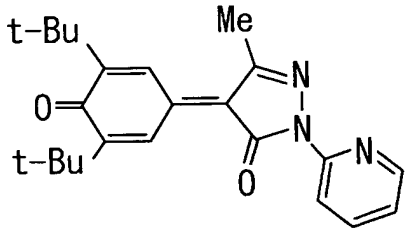
..... Chemical formula(49)

33. A compound represented by a following chemical formula (50):



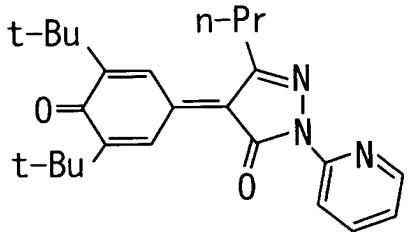
..... Chemical formula(50)

34. A compound represented by a following chemical formula (51):



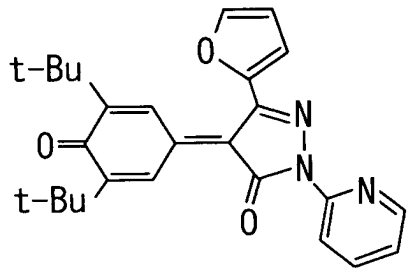
..... Chemical formula(51)

35. A compound represented by a following chemical formula (52):



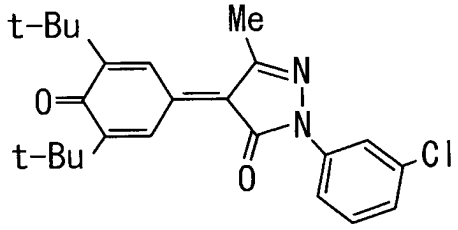
..... Chemical formula(52)

36. A compound represented by a following chemical formula (53):



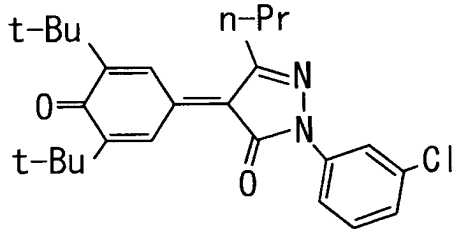
..... Chemical formula(53)

37. A compound represented by a following chemical formula (54):



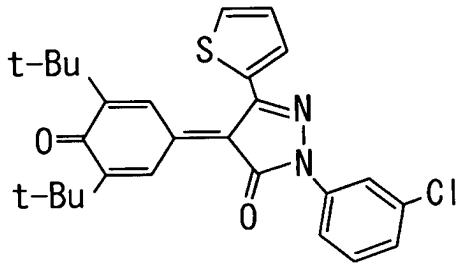
..... Chemical formula(54)

38. A compound represented by a following chemical formula (55):



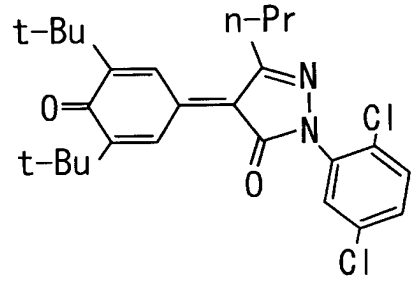
..... Chemical formula(55)

39. A compound represented by a following chemical formula (56):



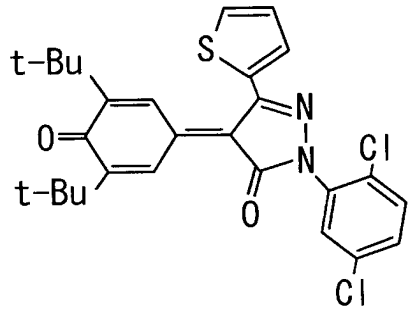
..... Chemical formula(56)

40. A compound represented by a following chemical formula (57):



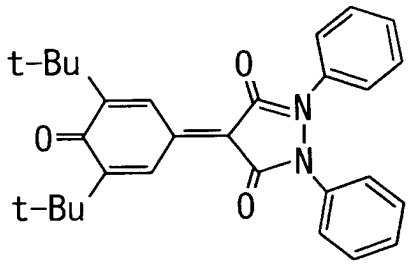
..... Chemical formula(57)

41. A compound represented by a following chemical formula (58):



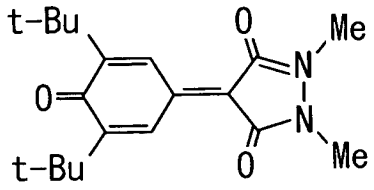
..... Chemical formula(58)

42. A compound represented by a following chemical formula (59):



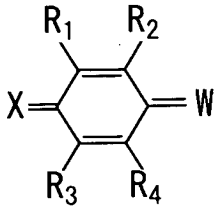
..... Chemical formula(59)

43. A compound represented by a following chemical formula (60):



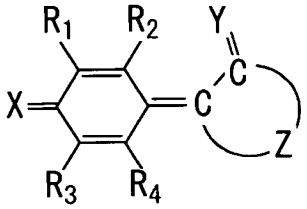
..... Chemical formula (60)

44. A process for producing a compound represented by a following general formula (1):



..... General formula (1)

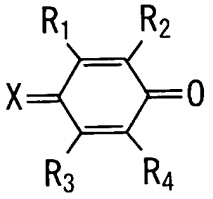
wherein R_1 to R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has the structure shown in a following general formula (1') that replaces the general formula (1) above:



..... General formula (1')

wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring,

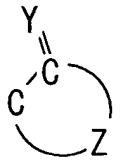
the process comprising a step of reacting in the presence of a base catalyst a benzoquinone compound represented by a following general formula (17):



..... General formula (17)

wherein R_1 through R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$,

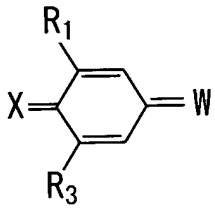
with a compound having an active methylene represented by a following general formula (18):



..... General formula (18)

wherein the compound is a 4- to 8-membered ring; Y is oxygen or sulfur; and Z is a structure that has 2 or more atoms and forms a part of the ring.

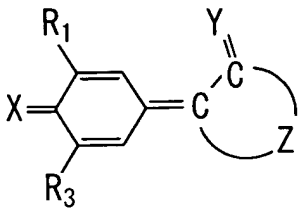
45. A process for producing a compound represented by a following general formula (2):



..... General formula (2)

wherein R_1 and R_3 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-

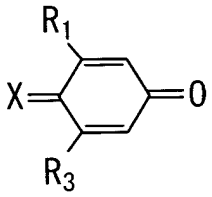
membered ring and has a structure shown in a following general formula (2') that replaces the general formula (2) above:



..... General formula (2')

wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring,

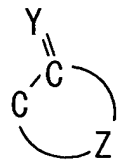
the process comprising a step of reacting in the presence of a base catalyst a benzoquinone compound represented by a following general formula (19):



..... General formula (19)

wherein R_1 and R_3 are each independently selected from a group consisting of hydrogen, alkyl with 1 to 6 carbon atoms, and phenyl; and X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$,

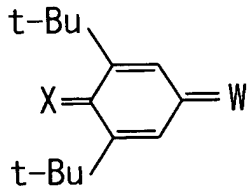
with a compound having an active methylene represented by a following general formula (18):



..... General formula (18)

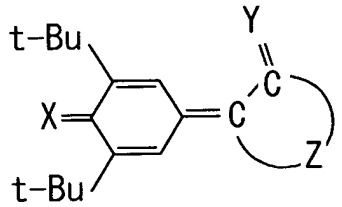
wherein the compound is a 4- to 8-membered ring; Y is oxygen or sulfur; and Z is a structure having 2 or more atoms and forms a part of the ring.

46. A process for producing a compound represented by a following general formula (3):



..... General formula (3)

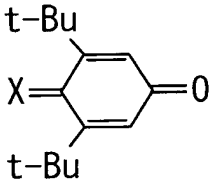
wherein X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (3') that replaces the general formula (3) above:



..... General formula (3')

wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring,

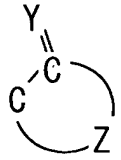
the process comprising a step of reacting in the presence of a base catalyst a benzoquinone compound represented by a following general formula (20):



..... General formula (20)

wherein X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$,

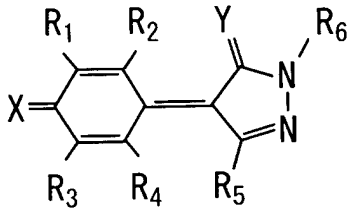
with a compound having an active methylene represented by a following general formula (18):



..... General formula (18)

wherein the compound is a 4- to 8-membered ring; Y is oxygen or sulfur; and Z is a structure having 2 or more atoms and forms a part of the ring.

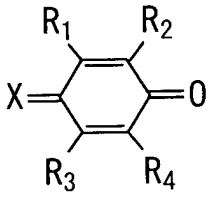
47. A process for producing a compound represented by a following general formula (4):



..... General formula (4)

wherein R_1 through R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur,

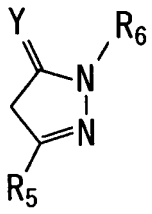
the process comprising a step of reacting in the presence of a base catalyst a benzoquinone compound represented by a following general formula (17):



..... General formula (17)

wherein R_1 through R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$,

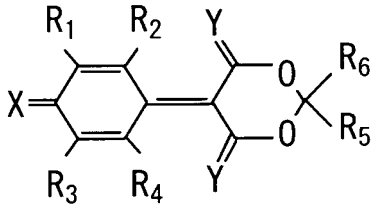
with a compound having an active methylene represented by a following general formula (21):



····· General formula (21)

wherein R_5 and R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and Y is oxygen or sulfur.

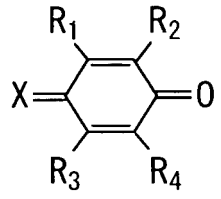
48. A process for producing a compound represented by a following general formula (5):



····· General formula (5)

wherein R_1 through R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur,

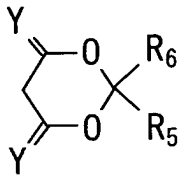
the process comprising a step of reacting in the presence of a base catalyst a benzoquinone compound represented by a following general formula (17):



····· General formula (17)

wherein R_1 through R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$,

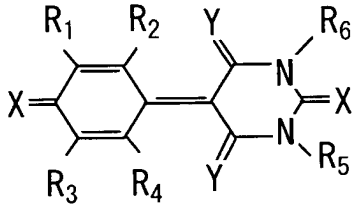
with a compound having an active methylene represented by a following general formula (22):



..... General formula (22)

wherein R_5 and R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and Y is oxygen or sulfur.

49. A process for producing a compound represented by a following general formula (6):

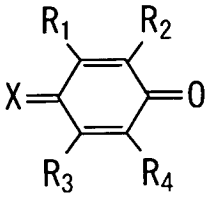


..... General formula (6)

wherein R_1 through R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur,

the process comprising a step of reacting in the presence of a base catalyst a

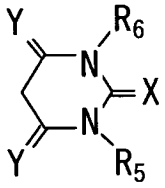
benzoquinone compound represented by a following general formula (17):



····· General formula (17)

wherein R_1 through R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$,

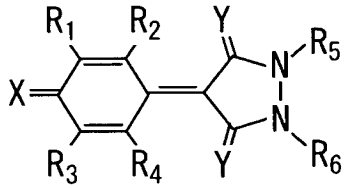
with a compound having an active methylene represented by a following general formula (23):



····· General formula (23)

wherein R_5 and R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur.

50. A process for producing a compound represented by a following general formula (44):

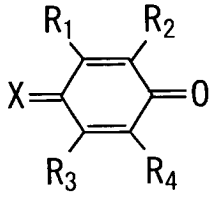


····· General formula (44)

wherein R_1 through R_6 are each independently selected from a group consisting of

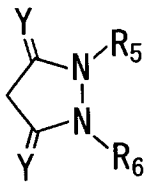
hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and Y is oxygen or sulfur,

the process comprising a step of reacting in the presence of a base catalyst a benzoquinone compound represented by a following general formula (17):



····· General formula (17)

wherein R_1 through R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$, with a compound having an active methylene represented by a following general formula (61):



····· General formula(61)

wherein R_5 and R_6 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; and Y is oxygen or sulfur.

51. The process for producing a compound according to claim 44 wherein the benzoquinone compound is reacted with the compound having an active methylene in

the presence of the base catalyst and one or a mixture of two or more solvents selected from a group consisting of water, alcohol, and saturated hydrocarbon solvent.

52. The process for producing a compound according to claim 45, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and one or a mixture of two or more solvents selected from a group consisting of water, alcohol, and saturated hydrocarbon solvent.

53. The process for producing a compound according to claim 46, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and one or a mixture of two or more solvents selected from a group consisting of water, alcohol, and saturated hydrocarbon solvent.

54. The process for producing a compound according to claim 47, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and one or a mixture of two or more solvents selected from a group consisting of water, alcohol, and saturated hydrocarbon solvent.

55. The process for producing a compound according to claim 48, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and one or a mixture of two or more solvents selected from a group consisting of water, alcohol, and saturated hydrocarbon solvent.

56. The process for producing a compound according to claim 49, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and one or a mixture of two or more solvents selected from a group consisting of water, alcohol, and saturated hydrocarbon solvent.

57. The process for producing a compound according to claim 50, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and one or a mixture of two or more solvents selected

from a group consisting of water, alcohol, and saturated hydrocarbon solvent.

58. The process for producing a compound according to claim 44, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and a solvent that needs to be used in amounts of 50ml or more to dissolve 1g of the compound of the general formula (1).

59. The process for producing a compound according to claim 45, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and a solvent that needs to be used in amounts of 50ml or more to dissolve 1g of the compound of the general formula (2).

60. The process for producing a compound according to claim 46, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and a solvent that needs to be used in amounts of 50ml or more to dissolve 1g of the compound of the general formula (3).

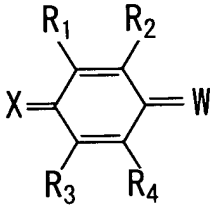
61. The process for producing a compound according to claim 47, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and a solvent that needs to be used in amounts of 50ml or more to dissolve 1g of the compound of the general formula (4).

62. The process for producing a compound according to claim 48, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and a solvent that needs to be used in amounts of 50ml or more to dissolve 1g of the compound of the general formula (5).

63. The process for producing a compound according to claim 49, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and a solvent that needs to be used in amounts of 50ml or more to dissolve 1g of the compound of the general formula (6).

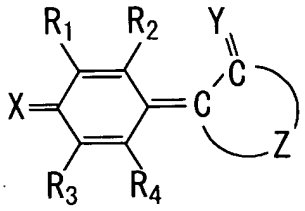
64. The process for producing a compound according to claim 50, wherein the benzoquinone compound is reacted with the compound having an active methylene in the presence of the base catalyst and a solvent that needs to be used in amounts of 50ml or more to dissolve 1g of the compound of the general formula (44) .

65. An electron-transfer agent comprising a resin and as a charge-transfer material a compound represented by the following general formula (1):



..... General formula (1)

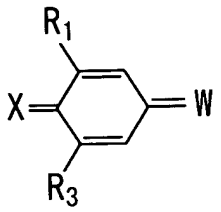
wherein R_1 to R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (1') that replaces the general formula (1) above:



..... General formula (1')

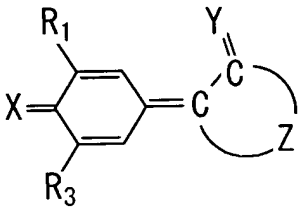
wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.

66. An electron-transfer agent comprising a resin and as a charge-transfer material a compound represented by the following general formula (2):



..... General formula (2)

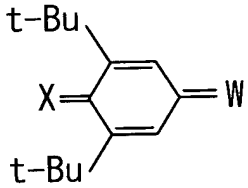
wherein R_1 and R_3 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring having a structure shown in a following general formula (2') that replaces the general formula (2) above:



..... General formula (2')

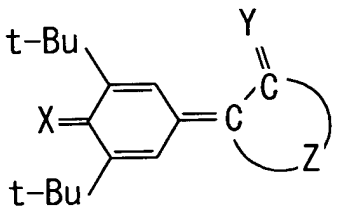
wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.

67. An electron-transfer agent comprising a resin and as a charge-transfer material a compound represented by the following general formula (3):



..... General formula (3)

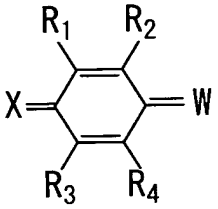
wherein X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (3') that replaces the general formula (3) above:



..... General formula (3')

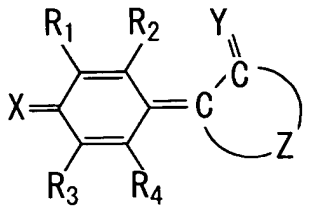
wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.

68. An electrophotographic photoreceptor comprising an electroconductive substrate having at least a photosensitive layer disposed thereon, wherein the photosensitive layer contains as a charge-transfer material a compound represented by a following general formula (1):



..... General formula (1)

wherein R_1 to R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has the structure shown in a following general formula (1') that replaces the general formula (1) above:

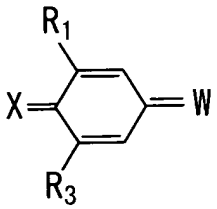


..... General formula (1')

wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a

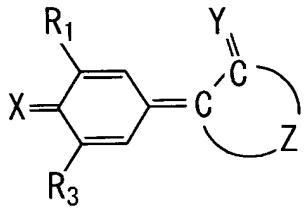
part of the ring.

69. An electrophotographic photoreceptor comprising an electroconductive substrate having at least a photosensitive layer disposed thereon, wherein the photosensitive layer contains as a charge-transfer material a compound represented by a following general formula (2):



····· General formula (2)

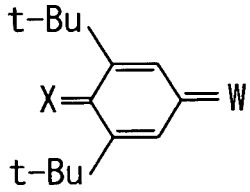
wherein R_1 and R_3 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (2') that replaces the general formula (2) above:



····· General formula (2')

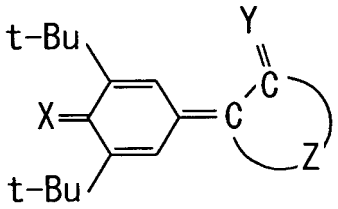
wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.

70. An electrophotographic photoreceptor comprising an electroconductive substrate having at least a photosensitive layer disposed thereon, wherein the photosensitive layer contains as a charge-transfer material a compound represented by the following general formula (3):



····· General formula (3)

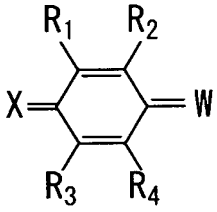
wherein X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (3') that is to replace the general formula (3) above:



····· General formula (3')

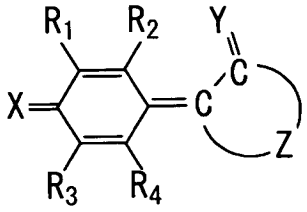
wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.

71. An organic electroluminescence element comprising an organic film that can at least emit light and is disposed between a pair of electrodes, wherein the organic film contains a compound represented by a following general formula (1):



····· General formula (1)

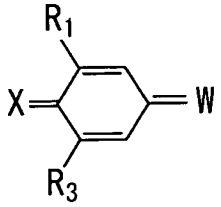
wherein R_1 through R_4 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (1') that replaces the general formula (1) above:



..... General formula (1')

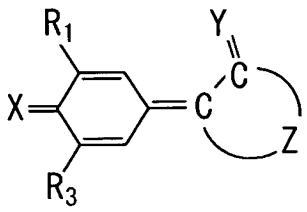
wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.

72. An organic electroluminescence element comprising an organic film that can at least emit light and is arranged between a pair of electrodes, wherein the organic film contains a compound represented by a following general formula (2):



..... General formula (2)

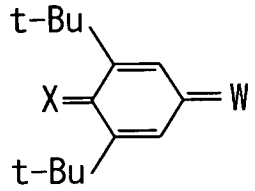
wherein R_1 and R_3 are each independently selected from a group consisting of hydrogen, cyano, nitro, halogen, hydroxyl, alkyl, aryl, heterocyclic ring, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, and carboxylic acid; X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (2') that replaces the general formula (2) above:



..... General formula (2')

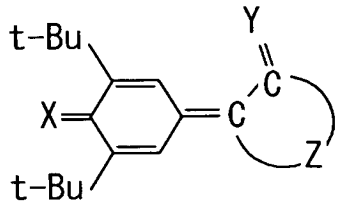
wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.

73. An organic electroluminescence element comprising an organic film that can at least emit light and is disposed between a pair of electrodes, wherein the organic film contains a compound represented by a following general formula (3):



····· General formula (3)

wherein X is selected from a group consisting of oxygen, sulfur, and $=C(CN)_2$; and W is a 4- to 8-membered ring and has a structure shown in a following general formula (3') that replaces the general formula (3) above:



····· General formula (3')

wherein Y is oxygen or sulfur, and Z is a structure that has 2 or more atoms and forms a part of the ring.